

CLAIMS

1. A dual mode mobile communication device comprising means for repeatedly monitoring and determining signal quality of signals received on a first network, whilst the signal quality remains above a predetermined first threshold, means for also monitoring and determining signal quality of signals received on a second network at selected intervals if the determined signal quality in the first network falls below the first threshold and for switching communication to the second network in dependence on the relative qualities of the two signals, and means for also monitoring and determining signal quality of signals received on the second network more frequently if the signal quality on the first network falls beneath a second lower threshold, and means for switching communication to the second network in dependence on the relative qualities of the two signals.
2. A dual mode mobile communication device according to claim 1 in which the selected intervals for monitoring the first and second networks when the quality of the signal on the first network falls below the first threshold are determined in dependence on the quality of signal on the first network.
3. A dual mode mobile communication device according to

claim 2 in which the dependence on signal quality is a linear relationship based on two threshold levels and the current signal quality.

4. A dual mode mobile communication device according to claim 1 in which the selected intervals for monitoring the first and second networks when the quality of the signal on the first network falls below the first threshold are dependent on the quality of the signal received on the second network relative to the quality of the signal received on the first network.

5. A dual mode mobile communication device according to claim 4 in which the dependence on signal quality is a linear relationship based on the difference between the two signal quality levels.

6. A dual mode mobile communication device according to claim 1 in which the selected intervals for monitoring the first and second network when the quality of the signal falls below the first threshold are dependent on both the quality of the signal received on the first network and the quality of the signal received on the second network relative to the quality of the signal received on the first network.

7. A dual mode mobile communication device according to claim 6 in which both dependencies are linear.

8. A dual mode mobile communication device according to claim 1 wherein the threshold values can be dynamically changed.

9. A dual mode mobile communication device according to claim 8 wherein changes to the threshold values are broadcast by either one of the mobile networks or both and are received by the device.

10. A method for selecting a network for communication in a dual mode mobile communication device comprising the steps of:

selecting a first network for communication;
repeatedly monitoring and determining signal quality on the first network whilst the signal quality remains above a first threshold;

monitoring and determining signal quality on the second network at selected intervals if the determined signal quality in the first network falls below the first threshold;

switching communication to the second network in dependence on the relative qualities of the two signals;

increasing the frequency of monitoring and determining the quality of the signal received on the second network if the quality of the signal received on the first network falls below a lower second threshold.

11. A method according to claim 10 in which monitoring and determining of signal quality on the first and second networks when the quality on the first network falls below the first threshold is performed at intervals dependent on the quality of the signal received on the first network.

12. A method according to claim 11 in which the dependence on signal quality is a linear relationship based on the two threshold levels and the current signal quality.

13. A method according to claim 10 in which the monitoring and determining of signal quality on the first and second networks when the quality of the signal on the first network falls below the first threshold is performed at intervals dependent on the quality of the signal received on the second network relative to the quality of the signal received on the first network.

14. A method according to claim 10 in which the dependence

on signal quality is a linear relationship based on the difference between the two signal quality levels.

15. A method according to claim 10 in which the selected intervals for monitoring the first and second networks when the quality of the signal falls below the first threshold are dependent on both the quality of the signal received on the first network and the quality of the signal received on the second network relative to the quality of the signal received on the first network.
16. A method according to claim 15 in which both dependencies are linear.
17. A method according to claim 16 including the step of dynamically changing the threshold value.
18. A method according to claim 17 including the step of broadcasting the threshold values by either or both mobile networks.